

ISHLINSKIY, G.M.

PHASE I BOOK EXPLOITATION

SOV/4526

Soveshchaniye po teorii invariantnosti i yeye primeneniyu v avtomaticheskikh ustroystvakh. Kiyev, 1958

Teoriya invariantnosti i yeye primeneniye v avtomaticheskikh ustroystvakh; trudy soveshchaniya (Theory of Invariance and Its Applications to Automatic Devices; Transactions of the Conference Oct. 16-20, 1958) Moscow, 1959. 381 p. No. of copies printed not given.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Otdeleniye tekhnicheskikh nauk.

Resp. Ed.: V.S. Kulebakin, Academician; Editorial Commission: V.A. Bodner, Doctor of Technical Sciences, A.G. Ivakhnenko, Doctor of Technical Sciences, A.Yu. Ishlinskiy, Academician, Academy of Sciences UkrSSR, N.A. Kachanova, Candidate of Technical Sciences, P.I. Kuznetsov, Doctor of Physics and Mathematics, A.I. Kukhtenko, Doctor of Technical Sciences, B.N. Petrov, Corresponding Member, Academy of Sciences USSR, Ye.P. Popov, Doctor of Technical Sciences, G.M. Ulanov, Doctor of Technical Sciences, K.K. Khrenov, Academician, Academy of Sciences UkrSSR, P.I. Chinayev, Candidate of Technical Sciences, and N.M. Chumakov, Candidate of Technical Sciences; Tech. Ed.: G.V. Kruglov.

PURPOSE: This collection of papers is intended for engineers and other specialists working in various fields of automation.

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Theory of Invariance (Cont.)

SOV/4526

**COVERAGE:** The collection includes reports and papers presented at the Conference on the Theory of Invariance and Its Applications to Automatic Devices, which was called by the Otdeleniye tekhnicheskikh nauk (Department of Technical Sciences) and the Institut elektrotekhniki (Institute of Electrical Engineering) of the Academy of Sciences of the Ukraine and convened in Kiev October 16 - 20, 1958. The papers presented are concerned with high-quality automatic control systems designed on the basis of compensating for the effects of disturbances or maintaining the invariance of the quality to be regulated with respect to the disturbances acting on the system. The reports treat the physical and mathematical foundations of invariance in automatic control systems; they also consider methods for designing and calculating invariant systems and problems connected with specific cases of practical applications of compensation in various automatic systems. On the basis of these reports it was established by the Conference that, by utilization of the conditions of compensation and the principle of invariance, it is possible to produce automatic systems and various arrangements which are more perfect from the viewpoint of quality of the regulation and control process, stability, simplicity of construction, and reliability of operation. The following members of the Kiev Seminar on Automatic Control are mentioned as organizers of the conferences: A.I. Kukhtenko, A.G. Ivankhenko, Yu.G. Kornilov, O.M. Kryzhanovskiy, N.M. Chumakov, N.A. Kachanova, and P.I. Chinayev. References accompany each article.

Card 2/8

ISHLINSKIY, O. Yu.

see card for ISHLINSKIY, A. Yu.

SYCHEV, K.I.; ISHMAKOV, K.I.; ZHUKOV, M.I.; CHYMACHENKO, Yu.T.

New data on the hydrogeology of the northern Lake Balkhash region.

Mat.po geol.i pol.iskop.TSentr.Kazakh. no.2:85-95 '62.

(MIRA 15:12)

(Balkhash Lake region--Water, Underground)

L 30111-00

ACC NR: AP6004216

(A)

SOURCE CODE: UR/0331/65/000/009/0000/0000

AUTHOR: Il'in, G. P. (Candidate of technical sciences, Engineer); Ishmametov, A. S.  
(Candidate of technical sciences, Engineer)

ORG: none

TITLE: Equipment used with skid tractors<sup>14</sup> in forest husbandry

SOURCE: Lesnaya promyshlennost', no. 9, 1965, inside front cover and inside back cover

TOPIC TAGS: agricultural machinery, tractor

ABSTRACT: Plows, cultivators, ditch diggers, seeders, tree planters, and sprayers used with skid tractors in reforestation, soil preparation, fire fighting, and fire prevention are described. The basic technical specifications of the tractors are given. The authors identify the manufacturers and model numbers of the machines and recommend the various tractors with which the hook-on equipment should be used. Orig. art. has: 2 figures, 8 tables.

SUB CODE: 02/ SUBM DATE: none

UDC: 631.3 : 634.0.377.44

Card 1/1

PANICHEVA, G.F., ISHMAMETOV, A.S.

Stamped plywood barrels. Standartizatsia 24 no.7:37-38  
J1 '60.

(MIRA 13:7)

(Barrels--Standards)

ISEMAMETOV, A.S.; BATASHEVA, N.V.; GERSHMAN, Ya.G.

Intrafactory haulage of parts in container pallets. Der.prom. 10  
no.3:23-24 Mr '61. (MIRA 14:5)  
(Utilized cargo systems)

ISHMAMETOV, A.K.

ISHMAMETOV, A.K.

Results of using radiation logging methods for geological mapping and prospecting for certain mineral resources.

Rasved.1 okh.nedr 23 no.2:54-56 P '57.

(MLRA 10:5)

1. Bashkirskeye geolupravleniye.

(Oil well logging. Radiation)

(Prospecting--Geophysical methods)



ISHMATOV, A.

Required by life. Metallurg 8 no.10:35-37:0 '63. (MIRA 16:12)

1. Nachal'nik byuro po delam ratsionalizatsii i izobretatel'stva  
Chelyabinskogo metallurgicheskogo zavoda.



ISHMAYEV, A. M.

"The Importance of Environmental Conditions During Icteric Diseases of the Oak Silkworm." Cand Biol Sci, Inst of Zoology, Acad Sci Ukrainian SSR, Kiev, 1953. (RZhBiol, No 7, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

ISHMAYEV, A.M., kand. biolog. nauk

Hill placement of hexachlorocyclohexane in soils. Zashch. rast.  
ot vred. i bol. 8 no.4:19-20 Ap '63. (MIRA 16:10)

1. Bashkirskiy nauchno-issledovatel'skiy institut sel'skogo  
khozyaystva.

(Corn (Maize)—Diseases and pests)

(Benzene hexachloride)

(Wireworms—Extermination)

ISHMAYEV, P.M.

Data on the lithology of lower Carboniferous deposits in the south-eastern Tatar A.S.S.R. Uch.zap.Kaz.un. 115 no.16:29-35 '56.

(MLRA 10:3)

1. Kafedra mineralogii.

(Tatar A.S.S.R.--Geology, Stratigraphic)

ISHMAYEV, P.M.

Some data on the lithology of the lower Carboniferous in the  
Chekmagush District of Bashkiria. Uch. zap. Kaz. un. 117 no.9:  
325-327 '57. (MIRA 13:1)

1. Kazanskiy gosudarstvennyy universitet im. V.I. Ul'yanova-Lenina.  
Kafedra mineralogii.  
(Chekmagush District--Rocks)

KOCHNEV, I. (Bodaybo, Irkutskaya obl.); ISHMAYEV, I. (Bodaybo, Irkutskaya obl.)

Under the conditions of northern regions. Posh. delo 8  
no.9:25 S '62. (MIRA 16:11)

L 39776-66 EWT(m)/ENR(t)/RII LJP(c) WW/JD/GD-2/JG

ACC NR: AT6012689

SOURCE CODE: UR/3136/65/000/977/0001/0016

AUTHOR: Ishmayev, S. N.; Mostovoy, V. I.; Nozik, V. Z.; Sadikov, I. P.; Chernyshov, A. A.; Yudevich, M. S.

ORG: State Committee on the Use of Atomic Energy SSSR, Institute of Atomic Energy im. I. V. Kurchatov, Moscow (Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR, Institut atomnoy energii)

TITLE: Study of nonstationary neutron spectra in zirconium <sup>19</sup>hydride <sup>21</sup>

SOURCE: Moscow. Institut atomnoy energii. Doklady, no. 977, 1965. Izucheniye nestatsionarnykh spektrov neytronov v gidride tsirkoniya, 1-16

TOPIC TAGS: neutron spectrum, zirconium compound, hydride, nuclear reactor moderator, scattering cross section

ABSTRACT: This is a continuation of earlier work (Report at the Symposium on Investigations with Pulsed Neutron Sources, Karlsruhe, 1965) dealing with the non-stationary spectra of  $ZrH_{1.88}$  systems of different dimensions in a wide range of moderation times. In the present paper the experimental results are compared with calculations based on the use of double-differential cross sections calculated from the spectrum of the normal oscillations of the hydrogen atoms in a zirconium

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L 39776-66

ACC NR: AT6012689

lattice with different ratios of the acoustic and optical branches. The time-dependent neutron spectra were measured with an experimental setup described by the authors earlier (Paper P/367 at the 1964 Geneva Conference; Paper at the 1965 Karlsruhe Symposium), with a moderation-time resolution of 3.5  $\mu\text{sec}$ . The average neutron energy in the investigated moderation-time range ( $T > 30 \mu\text{sec}$ ) turns out to be lower than the energy of the first optical level of the zirconium hydride (0.13 eV), so that the energy exchange between the neutron gas and the medium is due essentially to excitation of the acoustic vibrations of the  $\text{ZrH}_{1.88}$  lattice. The time necessary to establish the equilibrium spectrum is of the order of 400  $\mu\text{sec}$  in a "large" system ( $30 \times 28 \times 25 \text{ cm}$ ,  $B^2 = 3.8 \times 10^{-2} \text{ cm}^{-2}$ ). In a "small" system ( $25 \times 25 \times 7 \text{ cm}$ ,  $B^2 = 0.2 \text{ cm}^{-2}$ ) strong diffusion cooling is observed, and the time necessary to establish the equilibrium energy distribution increases with decreasing system dimensions. The nonstationary neutron spectra were calculated in the P-1 approximation using a computer program described by L. V. Mayorov et al. (Paper P/360 at the Third Geneva Conference, 1964). The agreement between the calculations and the experiment is satisfactory. The best agreement between the measured and calculated spectra is obtained if it is assumed that the amplitudes of the acoustic and optical vibrations in  $\text{ZrH}_{1.88}$  have a ratio 1/360. Orig. art. has: 3 figures, 2 formulas, and 2 tables.

SUB CODE: 18/

SUM DATE: 00/

ORIG REF: 002/

OTH REF: 009

Card 2/2 MLP

L 34130-66 EWT(m)/EWP(j) RM

ACC NR: AP6025539

SOURCE CODE: UR/0079/66/036/001/0161/0162

AUTHOR: Pudovik, A. N.; Ishmayeva, E. A.; Aldmerova, R. S.; Aladzheva, I. M. 44

ORG: Kazan' State University im. V. I. Ul'yanov-Lenin (Kazanskiy gosudarstvennyy universitet) B

TITLE: Addition of nucleophilic reagents to 2,3-di(diethylphosphone)-butadiene-1,3]

SOURCE: Zhurnal obshchey khimii, v. 36, no. 1, 1966, 161-162

TOPIC TAGS: phosphorus acid, phosphorus compound, exothermic reaction, IR spectrum, potassium compound

ABSTRACT: The addition of nucleophilic reagents: dimethyl- and diethylphosphorous acids, ethyl mercaptan, and diethylamine to butadiene was found to proceed in the presence of alcoholates of the alkali metals. Addition proceeds exothermally in the 1,2-position. 1-Dimethylphosphone-2,3-di(diethylphosphone)butene-3, 1,2,3-tri(diethylphosphone)butene-3, 1-mercaptoethyl-2,3-di(diethylphosphone)butene-3, and 1-diethylamino-2,3-di(diethylphosphone)butene-3 were synthesized; their structures were established by study of their infrared spectra and oxidation with potassium permanganate.

[JPRS: 35,998]

SUB CODE: 07, 20 / SUBM DATE: 21Apr65 / ORIG REF: 001

Card 1/1 20

UDC: 547.26.118

0976

093.7

PUDOVIK, A.N.; KONOVALOVA, I.V.; ISHMAYEVA, E.A.

New method of synthesizing phosphinic and thiophosphinic acid esters.  
Part 37: Addition of nucleophilic reagents to butadiene- and  
methylbutadienephosphinic esters. Zhur. ob. khim. 32 no.1:237-241  
Ja '62; (MIRA 15:2)

1. Kazanskiy gosudarstvennyy universitet.  
(Phosphinic acid)

PUDOVIK, A.N.; KONOVALOVA, I.V.; ISHMAYEVA, E.A.

Reactions of the diene synthesis and addition of butadienephosphinic  
and butadienethiophosphinic esters. Zhur. ob. khim. 33 no.8:  
2509-2513 Ag '63. (MIRA 16:11)

1. Kazanskiy gosudarstvennyy universitet.

I 21860-66 EWT(m)/ENP(j) RM

ACC NR: AP6012651

SOURCE CODE: UR/0079/65/035/002/0358/0363

AUTHOR: Pudovik, A. N.; Ishmayeva, E. A.

ORG: Kazan' State University (Kazanskiy gosudarstvennyy universitet)

TITLE: Butadienethio- and selenophosphinic esters

SOURCE: Zhurnal obshchey khimii, v. 35, no. 2, 1965, 358-363

TOPIC TAGS: ester, phosphoric acid, mercaptan, butadiene

ABSTRACT: Methyl, n-propyl, and n-butyl esters of 1, 3-butadienethio-phosphinic acid were obtained and a study made of the addition of unsaturated esters of phosphoric acids and ethylmercaptan to these esters. The addition of nucleophilic reagents to butadiene thiophosphinic esters occurs in the 1, 4 position. The acid dichloride of 4-chlorobutene-2-selenophosphonic acid and the dimethyl ester of 1, 3-butadiene selenophosphonic acid were obtained and characterized. Orig. art. has: 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 16Dec63 / ORIG REF: 003 / OTH REF: 001

Card 1/1

UDC: 547.315.2:546.183

ACCESSION NR: AP5013053

UR/0190/65/007/005/0808/0812  
541.64+678.675

36  
22

AUTHORS: Pudovik, A. N.; Ishmayeva, E. A.

TITLE: Polycondensation of 4-chlorobut-2-enephosphinyl chloride with dihydroxy compounds

SOURCE: Vysokomolekulyarnyye soedineniya, v. 7, no. 5, 1965, 803-812

TOPIC TAGS: polycondensation, polymer, resin, reaction kinetics, activation energy

ABSTRACT: The investigation is an extension of the work of V. V. Korshak, I. A. Gribova, and M. A. Andreyeva (Izv. AN SSSR. Otd. khim. n., 1957, 631). Polycondensation of 4-chlorobut-2-enephosphinyl chloride (A) with aliphatic and aromatic dihydroxy compounds was investigated. The condensation was carried out at 600. The velocity and extent of reaction were determined by the quantity of HCl evolved. The activity of aliphatic glycols in decreasing order of activity was: 2-propylene-1,2-glycol, ethylene glycol, diethylene glycol, butylene-1,4-glycol, dipropylene glycol, and hexamethylene glycol. The activity of aromatic glycols diminished in the order: pyrocatechin, diphenylolpropane, hydroquinone.

Card 1/2

L 63035-15

ACCESSION NR: AP5013053

The reaction between A and diethylene glycol was found to be second order with an energy of activation of  $17.9 \pm 2.3$  Kcal/mole. Dehydrochlorination of polyesters of A and diethylene glycol and of A and butyleneglycol-1,4 yielded polyesters with a butadiene radical at the phosphorus atom. Orig. art. has: 1 table and 2 graphs.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet im. V. I. Ul'yanova-Lenina:  
(Kazan State University)

SUBMITTED: 04Jul64

ENCL: 00

SUB CODE: MT,GC

NO. 33 5 11 004

OTHER: 001

Card 2/2

L 27714-66- EWT(m)/EWP(j) IJP(c) RM

ACC NR: AP6018514

SOURCE CODE: UR/0079/65/035/011/2080/2081

AUTHOR: Pudovik, A. N.; Ishmayeva, E. A.

ORG: none

TITLE: Addition of S-chlorodiethylthiophosphate to divinyl

SOURCE: Zhurnal obshchey khimii, v. 35, no. 11, 1965, 2080-2081

TOPIC TAGS: IR spectrum, hydrolysis, oxidation, organic phosphorus compound, organic sulfur compound, chlorinated organic compound

ABSTRACT: The reaction of S-chlorodiethylthiophosphate with the simplest representative of dienic compounds with a conjugated system of double bonds -- divinyl -- at  $-50^{\circ}$  results in the production of a small amount of the diethyl ester of monothiophosphoric acid and an addition product in 60% yield. The infrared spectrum of the addition product and results of its oxidation with potassium permanganate and hydrolysis indicated that addition of S-chlorodiethylthiophosphate to divinyl proceeds in the 1,2-position, yielding  $(EtO)_2P(=O)-S-CH_2-CHCl-CH=CH_2$ . The formation of a small amount of the diethyl ester of monothiophosphoric acid is explained by partial hydrolysis of the S-chlorodiethylthiophosphate during the reaction and treatment of the reaction mixture.

Orig. art. has: 1 formula. [JPRS]

SUB CODE: 07/ SUBM DATE: 19Apr65/ ORIG REF: 002/ OTH REF: 005

Card 1/1 BLG

UDC: 547.26'118/547.368



L 105163-67 EWT(m)/EWP(j)/EWP(t)/ETI IJP(c) JD/RM

ACC NR: AP7000737

SOURCE CODE: UR/0062/66/000/006/1123/1124

SHAGIDULLIN, R. R., CHERNOVA, A. V., ISHMAYEVA, E. A., PUDOVIK, A. N.,  
Institute of Organic and Physical Chemistry imeni A. E. Arbuzov, Academy of  
Sciences USSR (Institutt organicheskoy i fizicheskoy khimii AN SSSR)

"Question of Conjugation with Participation of the Phosphorus Atom"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, No 6, 1966,  
pp 1123-1124

Abstract: The ultraviolet and infrared absorption spectra and Raman spectra of  
compounds containing a diene group with substituents  $-P(OR)_2$  and  $-C(OR)=O$  were

investigated in comparison with isoprene. In the case of a terminal situation  
of the substituents, a bathochromic shift of the absorption maximum in the  
ultraviolet spectrum and a sharp increase in the intensity of the bands in  
the infrared spectrum and lines in the Raman spectrum of the valence vibra-  
tions of the C=C bonds is observed. These signs of conjugation are more pro-  
nounced for the carbonyl substituent. In the case of side substitution by

two  $-P(OR)_2$  groups, the opposite picture is observed: hypsochromic shift in

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UDC: 541.6 + 661.718.1

L 05163-67

ACC NR: AF7000737

the ultraviolet spectrum, decrease in intensities in the infrared and Raman spectra, indicating a decrease in the conjugation between the two C=C bonds, probably due to competition by the phosphorus portions of the molecule. Preliminary results on the intensities of the bands of the P=O and P=S bonds indicate the participation of these bonds in conjugation. Orig. art. has; 2 formulas. [JPRS: 37.023]

TOPIC TAGS: UV spectrum, IR spectrum, Raman spectrum, chemical bonding, chemical valence

SUB CODE: 07 / SUBM DATE: 17Mar66

Card 2/2 vmb

L 35428-65 EPP(c) EWP(k)/EWT(l)/EWT(m)/T PF-l/Pi-l/Pr-l WE

ACCESSION NR: AP5006659

S/0065/65/000/003/0029/0033

AUTHOR: Abramovich, S. Sh.; Ishmayeva, R. M.; Chernozhukov, N. I.

27  
B

TITLE: Effect of ultrasound on the deparaffinization of oil fractions

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 3, 1965, 29-33

TOPIC TAGS: ultrasonic treatment, deparaffinization, gatch, oil fraction, magnetostriction, cloud point, paraffin crystal, filtration rate/ UZG-2.5 generator

ABSTRACT: Recently there has appeared a large number of studies of the effect of high-frequency vibrations on the processes of crystallization as well as on the colloidal-chemical properties of certain gels and ashes. In this connection, the authors experimentally investigated the effect of ultrasound on the properties of paraffin suspensions in a mixture of raffinate and solvent subjected to deparaffinization. Five different fractions of distilled Soviet crude were investigated. The solvent used was acetone-benzene-toluene in the ratio of 30:35:35. The thermal processing was performed at +40°C; the cooling, at the rate of 120°C/hr; and the mixing rate was constant. Ultrasonic treatment was performed with the aid of a magnetostriction device excited by an UZG-2.5 generator. The optimal conditions

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L 35428-65

ACCESSION NR: AP5006659

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for ultrasonic treatment were tentatively established as follows: suspension temperature must be 6-10°C below the cloud point of the solution, and the treatment should be in a weak acoustic field, as otherwise the paraffin crystals would melt; further, conditions for the formation of a standing wave must be created. Given all these conditions, ultrasonic treatment of distilled oil fractions increases the filtration rate of suspensions 1.5-2 times and reduces by more than in half the oil content of gatch while at the same time correspondingly increasing the yield of deparaffinized oil. In addition it serves to increase the efficiency of deparaffinization of not only sulfur-containing but also sulfur-free raw materials. Orig. art. has: 3 figures, 4 tables.

ASSOCIATION: BashNIIP, MINKh 1 GP

SUBMITTED: 00

ENCL: 00

SUB CODE: GC, FP

NO REF SOV: 005

OTHER: 005

Card 2/2

L 34848-65 EPA(s)-2/ENT(m)/EPF(c)/ENG(v)/EPR/EPA(n)-2/ENP(j) Pc-4/Pab-10/Pe-5/Pr-4/  
ACCESSION NR: AP5008546 Ps-4/Pt-10 W/RM S/0286/65/000/006/0061/0061

AUTHOR: Alekseyenko, V. I.; Pokrovskiy, M. I.; Nishchurkin, I. U.; Lebedev, Yu. I.;  
Kudryavtsov, M. M.; Levin, B. I.; Abramyan, I. A.; Rekar, V. B.; Bernshteyn, L. M.;  
Kozlov, D. I.; Lysenko, A. I.; Luginina, V. A.

TITLE: A method for producing insulating plastics. Class 39, No. 169246

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 61

TOPIC TAGS: plastic insulator, polar polymer, nonpolar polymer

ABSTRACT: This Author's Certificate introduces a method for producing insulating plastics based on polyvinylchloride modified with rubber. The electrical insulation properties and heat resistance of the product are improved by using a mixture of polar and nonpolar rubbers as the modifiers with the addition of mineral fillers.

ASSOCIATION: none

SUBMITTED: 31Mar61

ENCL: 00

SUB CODE: NT,OC

NO REF SOV: 000

OTHER: 000

Card 1/1

VENDEL'SHTEYN, B.Yu.; BUKANOVA, M.G.; GORBENKO, A.S.; ~~ISHMETOV, M.G.~~;  
SKIBITSKAYA, N.A.; MANCHEVA, N.V.; SHVARTSMAN, M.D.; DAKHNOV,  
V.N., doktor geol.-miner. nauk, prof., red.; KUZ'MINA, N.N.,  
ved. red.; POLOSINA, A.S., tekhn. red.

[Album of nomograms and charts for interpreting the data of  
geophysical methods for studying wells] Al'bom nomogram i  
paletok dlia interpretatsii dannykh geofizicheskikh metodov  
issledovaniia skvazhin. Pod red. V.N.Dakhnova. Moskva, Gos-  
toptekhnizdat, 1963. 61 p. (MIRA 16:11)  
(Prospecting--Geophysical methods)

ISHMUKHAMETOV, A.I.

Use of the radioisotope method of research in some fields of  
parasitology; a review of literature. Med. paraz. i paraz. bol.  
34 no.1:101-106 Ja-F '65. (MIRA 18:8)

~~ИЗДАНИЕ~~  
DZHAKUPOV, T.; ISHMUKHAMEDOV, B.

Flourishing of the Kazakh socialist agriculture. Vest. AN Kazakh.  
SSR 13 no.10:27-40 0 '57. (MIRA 10:12)  
(Kazakhstan--Agriculture)



CHULANOV, G.Ch.; ISEMUHAMMEDOV, B.; ANTONOV, P.I.; ROZMANOV, M.M.

[Outline history of the economy of the Kazakh S.S.R., 1917 - 1928] Ocherki istorii narodnogo khoziaistva Kazakhskoi SSR, 1917 - 1928 gody. Alma-Ata, Vol.1. 1959. (MIRA 12:12)

1. Akademiya nauk Kazakhskoy SSR. Alma-Ata, Institut ekonomiki. (Kazakhstan--Economic conditions)

CHULANOV, Gabdulla Chulanovich; ISIMUKHAMEDOV, Bakenbay Margaliyevich;  
CHECHELEVA, Tat'yana Vasil'yevna; ZHUBANOVA, Zarya Galimovna;  
KOLTOCHNIK, N.I., red.; ROROKINA, Z.P., tekhn. red.

[Studies on the history of the national economy of the Kazakh  
S.S.R.] Ocherki istorii narodnogo khoziaistva Kazakhskoi SSR.  
[By] G.Ch.Chulanov i dr. Alma-Ata, Izd-vo Akad. nauk Kazakh-  
skoi SSR. Vol.2.[From 1928 to June 1941] 1928 god - iyun'  
1941 goda. 1962. 374 p. (MIRA 15:8)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut ekonomiki.  
(Kazakhstan--Economic conditions)

CHULANOV, G.Ch., doktor ekon. nauk, prof.; KISELEVA, L.I.; ZHUBANOVA, Z.G.; TAYBEKOV, I.Ye.; DZHAKSALIYEV, B.M.; ISHMUKHAMEDOV, B.M.; CHECHELEVA, T.V.; KUZNETSOV, Yu.N., red.; POGOZHEV, A.S., red.; ROROKINA, Z.P., tekhn. red.

[Essays on the history of the national economy of the Kazakh S.S.R.] Ocherki istorii narodnogo khoziaistva Kazakhskoi SSR. Alma-Ata, Izd-vo AN Kaz.SSR. Vol.3. [June 1941 to 1945] Iiun' 1941 goda - 1945 god. 1963. 299 p. (MIRA 17:1)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut ekonomiki.
2. Chlen-korrespondent AN Kaz.SSR (for Chulanov).

ISHMUKHAMEDOV, B., kand. istoricheskikh nauk; IGENBAYEV, A., kand. istoricheskikh nauk

Decennial of the reclamation of virgin land. Vest. AN Kazakh.  
SSR 20 no.8:88-90 Ag '64.

(MIRA 17:11)

SOV/137-59-2-2444

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 2, p 29 (USSR)

AUTHORS: Popov, A., Ishmukhamedov, I.

TITLE: Some Problems of the Operation of a Metallurgical Plant (Nekotoryye voprosy ekspluatatsii metallurgicheskogo zavoda)

PERIODICAL: Narodnoye kh-vo Kazakhstana, 1958, Nr 5. pp 29-31

ABSTRACT: The authors explore the prospects of the construction of a Karaganda metallurgical plant, which would have to operate with high technical-economical performance indices, namely, a volumetric utilization factor of the blast furnaces of 0.75 and an 11.5-ton production of steel per m<sup>2</sup> of floor area of open-hearth furnaces. A number of problems will have to be solved by the plant metallurgists for the first time; therefore, it is proposed that organization of a Scientific Research Institute of ferrous metallurgy in Karaganda would be necessary. To ensure a supply of Fe ore for the plant, the Ken-Tube mines and Antonsor deposits should be developed as well as the "Atasuyskiy" [Probably typographical error in Russian original, to read correctly "Atasuskiy" (48° N; 71° E); Transl. Ed. Note] deposits. The coal mixtures which would have to be used by the plant during the

Card. 1/2

SOV/137-59-2-2444

Some Problems of the Operation of a Metallurgical Plant

first years should be tested for coking quality. The refractory shop should master the production of Cr-magnesite refractories using local raw materials.

M. P.

Card 2/2

ISHMUKHAMEDOV, I.

Photographic observations of Giacobini-Zinner's comet (1959b) in  
Tashkent. Astron. tsir. no.208:8-9 Ja '60. (MIRA 13:11)

1. Tashkentskaya astronomicheskaya observatoriya.  
(Comets—1959)

ISHMUKHAMEDOV, Kh.Z. [deceased]; AKHMADALIYEV, M.

Inversion of matrices by A. P. Ershov's method. Vop. vych.  
mat. i tekhn. no.1:28-40 '64. (MIRA 18:8)



ISHMUKHAMEDOV, Kh.Z.

Standard program of determining the frequencies and types  
of vibration of rods of variable cross section. Vop. vych.  
mat. i tekhn. no.2:12-29 '64.

(MIRA 18:12)

AUTHOR: Ishmukhamedov, N.

SOV/130-59-2-7/17

TITLE: Experience of Kazakh Metallurgists (Opyt kazakhskikh metallurgov)

PERIODICAL: Metallurg, 1959, Nr 2, pp 19-20 (USSR)

ABSTRACT: The author divides existing methods of melting-on open-hearth furnace bottoms into two main groups: those using a high-magnesia charge applied in 20 to 25 mm thick layers with prolonged heating of each; those in which a slag and/or mill-scale containing charge is applied in 40 to 60 mm thick layers with brief heating. He states that the second group was found to be better at the Kuznetskiy metallurgicheskii kombinat (Kuznetsk Metallurgical Combine) and the Kazakhskiy metallurgical Works. He gives data for bottom-repair down-time at the latter works and describes two methods developed there. In the first, used for smaller holes, a layer of magnesite powder up to 100 mm thick is heated for 30 to 60 min and then impregnated with slag or scale. The whole repair takes 1.5 to 2 hours and gives an average life of 22 to 27 heats. For holes over 1 m<sup>2</sup> in area and 150 mm deep or for

Card 1/2

SOV/130-59-2-7/17

Experience of Kazakh Metallurgists

uniform wear the magnesite is applied in layers 40 to 60 mm thick, each being heated for 60 to 90 min. This method takes under 4-5 hours and gives an average life of 24 to 27 heats. The author goes on to discuss the materials used at the works for melting-on. From 1952 mill scale began to be used instead of open-hearth slag as a fluxing addition to magnesite powder and from May 1957 ilmenite concentrate, which is purer and more constant in composition was used. This has proved successful and since December 1957, a mixture of 88 to 89% magnesite powder, 6 to 7% concentrate and 4 to 5% mill scale has been used, giving a life of 41 heats and quicker repairs.

ASSOCIATION: Upravleniye Chernoy metallurgii i khimicheskoy promyshlennosti (Ferrometallurgical and Chemical Industry Management) Karagandinskiy sovnarkhoz (Karaganda Economic Council)

Card 2/2

ISHMUKHAMEDOV, N.K.; ZUBAKOV, S.M.

Interaction between open-hearth furnace hearth linings and the components of the charge and products of open-hearth smelting. Izv. AN Kazakh. SSR. Ser. met., obog. i ogneup. no.3:105-113 '61.

(MIRA 15:1)

(Refractory materials) (Liquid metals)

ISHMUKHAMEDOV, N.K.; ZUBAKOV, S.M.; ANOKHINA, A.I.; YUSUPOVA, E.N.

Burning in new fettlings. Vest. AN Kazakh.SSR 21 no.2:73-75  
F '65. (MIRA 18:3)

ISHMOKHANOVA, I.

Morphology of the digestive tract in insects of the "Orthopteroid complex". Trudy Inst. fiziol. AN Kazakh. SSR. 4:187-190 '63.  
(MIRA 17:10)

ISHMUKHAMETOV, A.I.

Clinical and therapeutic aspects of strongyloidiasis. Med. paras.  
i paraz. bol. no. 5:521-526 '61. (MIRA 14:10)

1. Iz klinicheskogo otdela Instituta meditsinskoy parazitologii  
i tropicheskoy meditsiny imeni Ye. I. Martynovskogo Ministerstva  
zdravookhraneniya SSSR (dir. instituta - prof. P. G. Sergiyev,  
zav. otdelom - prof. N. N. Flotnikov).  
(STRONGYLOIDIASIS)

ISHMUKHAMEDOV, A.I.

Experience of a hospital in the control of taeniasis. Sov.med.  
26 no.1:94-96 Ja '63. (MIRA 16:4)

1. Iz bol'nitsy No. 3 (glavnyy vrach N.D.Ivanov, nauchnyy  
rukovoditel' - dotsent S.V.Bazanova) poselka Tirlyan Bashkirskoy  
ASSR.

(TAENIA)



ISHMUKHAMEDOV, A.I.

Clinical and morphological characteristics of experimental  
strongyloidiasis in dogs. Med. paraz. i paraz. bol. 32, no. 1:  
108-113 Ja-F'63. (MIRA 16:10)

1. Iz klinicheskogo otdela (zav. - prof. N.N. Plotnikov) insti-  
tuta meditsinskoy parazitologii i tropicheskoy meditsiny imeni  
Ye.I. Martsinovskogo (dir. - prof. P.G. Sergiyev) Ministerstva  
zdravookhraneniya SSSR.

\*

ISHMUKHAMEDOV, A.I.

Clinical characteristics of duodenitis in strongyloidiasis  
patients. Med. paraz. i paraz. bol. 32 no.3:334-336 My-Je'63  
(MIRA 17:3)

1. Iz klinicheskogo otdela ( zav. -- prof. N.N. Plotnikov)  
Instituta meditsinskoy parazitologii i tropicheskoy meditsiny  
imeni Ye.I. Martinovskogo Ministerstva zdravookhraneniya SSSR  
(dir. - prof. P.G. Sergiyev).

ISHMUKHAMETOV, A.I.

Comparative evaluation of gentian violet and dithiazine in the treatment of strongyloidiasis. Med. paraz. i paraz. bol. 33 no. 4: 419-421 J1-Ag '64. (MIRA 18:3)

1. Klinicheskiy otdel Institute meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye. I. Maritsinovekogo Ministerstva zdravookhraneniya SSSR, Moskva.

TSYBUL'SKIY, V.B.; ISIMUKHMETOV, A.I.

Parasitological situation in the Kahemba Territory of the  
Congo Republic. Med. paraz. i paraz. bol. 33 no.2:225-258  
Mr-Apr '64 (MIRA 18:1)

1. Otdel ostrykh detskikh infektsiy (zav. - prof. S.D. Nosov) Instituta pediatrii AMN SSSR (direktor - dotsent M. Ya. Studenikin) i klinicheskiy otdel (zav. - prof. N.N. Plotnikov) Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martynovskogo (direktor - prof. P.G. Sergiyev) Ministerstva zdravookhraneniya SSSR.

ISHMUKHAMEDOV, B. KH.  
USSR:

1041. Ferromagnetism of substances of ferrite type and antiferromagnetism. K. B. VLAGOV AND B. KH. ISHMUKHAMEDOV. *Zh. eksper. teor. Fiz.*, 27, No. 11(7) 75-86 (1954). In Russian.

Above the antiferromagnetic Curie point the permeability follows the Curie-Weiss law, the paramagnetic Curie point differing from the antiferromagnetic one. Theoretically this indicates exchange interaction not only between sublattices but also inside the sublattices themselves. Below the antiferromagnetic Curie point the permeability is anisotropic, the perpendicular permeability being independent of temperature, and the parallel permeability dependent; the latter tends towards zero at 0°K and towards the value of the perpendicular permeability at the antiferromagnetic Curie point. The form of the temperature curve of the parallel (or resultant) permeability is determined by the ratio of the values of paramagnetic and antiferromagnetic Curie points; the smaller this ratio, the greater the slope of the curve referred to the temperature axis near the Curie point. These results agree with Neel's and van Vleck's conclusions based on the method of molecular fields. Certain differences exist for such materials as  $MnF_2$  and  $FeF_2$ , but they are partly due to disagreements between experimental conditions which render correct comparisons difficult and the theory has so far been evolved only for a somewhat limited temperature range.

B. P. KRAUS

AUTHORS: Svirskiy, M.S. and Ishmukhametov, B. Kh. 126-5-3-22/31

TITLE: The Statistics of Spin Waves (K voprosu o statistike spinovykh voln)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1957, Vol 5, Nr 3, pp 548-550 (USSR)

ABSTRACT: Frank's (Ref.1) deduction that spin waves follow Fermi statistics, from the incorrect argument that the wave-function for states of identical wave-numbers vanish, is shown to be incorrect, because the secular equations for adjacent left-handed spins are (incorrectly) applied to non-adjacent ones. The extra 'condition' introduced by Frank (Eq.(1) in the paper) is not applicable. A simple application of the Pauli principle is sufficient to show that Eq.(1) is self-contradictory. A simple reworking of the argument, from Eqs.(3) and (4) (secular equations), shows that Frank also deduced the number of solutions to Bethe's equations incorrectly (value too large). It is argued, but not rigorously demonstrated, that spin waves therefore follow Bose-Einstein statistics. The paper contains 17 equations. The subject of this paper was proposed by Corresponding

Card  
1/2

The Statistics of Spin Waves

126-5-3-22/31

Member of the Ac.Sc. S. V. Vonsovskiy.

There are 2 references, one of which is Soviet, 1 German.

ASSOCIATION: Institut fiziki metallov Ural'skogo Filiala AN SSSR  
(Institute of Metal Physics, Ural Branch of the Ac.Sc.,  
U.S.S.R.)

SUBMITTED: May 21, 1957

1. Nuclear spins--Statistical analysis
2. Wave analysis
3. Mathematics

Card 2/2

24(3)

AUTHORS:

Vlasov, K. B., Ishmukhametov, B. Kh.

SOV/56-36-4-49/70

TITLE:

On the Rotation of the Polarization Plane of Elastic Waves in a Magnetically Polarized Medium (O vrashchenii ploskosti polarizatsii uprugikh voln v magnitno-polyarizovannoy srede)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 4, pp 1301-1303 (USSR)

ABSTRACT:

In the present "Letter to the Editor" the authors investigate the propagation of plane elastic waves in a magnetically polarized medium with uniaxial symmetry. The case is investigated in which the constant polarized field  $H_0$  is orientated along the symmetry axis  $x_3$ . In disregard of magnetomechanical effects, the propagation of these waves along  $H_0$  is theoretically investigated. It was found that during propagation along  $H_0$  the plane polarized transversal elastic waves experience a rotation of the polarization plane round the angle  $\varphi$ . For  $\varphi$  an expression of the form  $\varphi = \kappa H_0 x_3 = B k^{(0)2} x_3 / 2(\rho c_{44})^{1/2}$  is obtained,  $k^{(0)} = (k^{(1)} + k^{(2)})/2$ ,  $B$  plays the part of the tensor component of the elasticity modulus; it may be complex.

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On the Rotation of the Polarization Plane of Elastic  
Waves in a Magnetically Polarized Medium

SOV/56-36-4-49/70

For the calculation of  $\varphi$  its real part is used. The imaginary part of  $B$  supplies absorption coefficients for the left- and right-circularly polarized waves. During passage of the linearly polarized wave an ellipticity occurs (a circular magnetic dichroism of the transversal elastic waves) beside the rotation of the polarization plane. For the ratio of the axes of this ellipse it holds that

$$b/a = \pm \text{th Im} \left\{ B_k^{(0)2} x_3 / [2(\rho c_{44})^{1/2}] \right\}.$$

The authors finally thank S. V. Vonsovskiy for his interest in this work. There are 3 references, 2 of which are Soviet.

ASSOCIATION: Institut fiziki metallov Akademii nauk SSSR (Institute for Metal Physics of the Academy of Sciences, USSR)

SUBMITTED: October 20, 1958

Card 2/2

24(3), 24(1)

AUTHORS:

Vlasov, K. B., Ishmukhametov, B. Kh. SOV/56-37-3-23/62

TITLE:

Rotation of the Polarization Plane of Elastic Waves in  
Magnetically Polarized Magnetoelastic Media

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,  
Vol 37, Nr 3(9), pp 745 - 749 (USSR)

ABSTRACT:

By using an equation (1) derived by Vlasov in reference 1, which describes the elastic, magnetic, and magnetoelastic properties of a magnetoelastic medium, the authors in the present paper investigate the propagation of magnetoelastic waves in magnetically polarized media, viz. for the special case of a homogeneous uniaxially symmetric medium. It is shown that the magnetoelastic wave propagating along a symmetry axis consists of three waves: a longitudinal wave and two circularly polarized waves, the propagation rate of which is different and depends on the magnetic state of the medium (magnetization or polarization field). The latter circumstance should lead to rotation of the polarization plane of linearly polarized elastic waves. The analysis is based on the use of the phenomenological "state equations",

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Rotation of the Polarization Plane of Elastic  
Waves in Magnetically Polarized Magnetoelastic Media

SOV/56-37-3-23/62

which describe the dynamical properties of magnetoelastic media; displacement currents and conductivity currents were taken into account. For some particular types of magnetoelastic media some details concerning the physical nature of the constants determining the rotation of the polarization plane are discussed. The frequencies at which an appreciable effect may be expected are estimated as  $\sim 10^{-9} \text{ sec}^{-1}$  for ferromagnetics. There are 10 references, 6 of which are Soviet.

ASSOCIATION: Institut fiziki metallov Akademii nauk SSSR (Institute of Metal Physics of the Academy of Sciences, USSR)

SUBMITTED: March 28, 1959

Card 2/2

ISHIYAKHANNETOV, D. K.

PHASE I BOOK EXPLOITATION SOV/893

Vsesoyuznoye soveshchaniye po fizike, fiziko-khimicheskim svoystvam ferritov i fizicheskim osnovaniy primeneniya. 3d, Minsk, 1959  
 Ferrity; fizicheskiye i fiziko-khimicheskiye svoystva. Doklady (Ferrites; Physical and Physicochemical Properties. Reports) Minsk, Izd-vo AN BSSR, 1960. 655 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agencies: Nauchnyy sovet po magnetizmu AN BSSR. Otdel fiziki tverdogo tela i poluprovodnikov AN BSSR.

Editorial Board: Resp. Ed.: M. M. Sirota, Academician of the Academy of Sciences BSSR; K. P. Belov, Professor; Ye. I. Kondorskiy, Professor; I. M. Polivanov, Professor; R. V. Tselentin, Professor; G. A. Smolenskii, Professor; M. M. Shol'ts, Candidate of Physical and Mathematical Sciences; E. M. Smolyarenko; and L. A. Mashkurov; Ed. of Publishing House: S. Kholyavskiy; Tech. Ed.: I. Volokhanovich.

PURPOSE: This book is intended for physicists, physical chemists, radio electronics engineers, and technical personnel engaged in the production and use of ferromagnetic materials. It may also be used by students in advanced courses in radio electronics, physics, and physical chemistry.

COVERAGE: The book contains reports presented at the Third All-Union Conference on Ferrites held in Minsk, Belorussian SSR. The reports deal with magnetic transformations, electrical and magnetic properties of ferrites, studies of the growth of ferrite single crystals, problems in the chemical and physicochemical analysis of ferrites, studies of ferrites having rectangular hysteresis loops and multi-component systems exhibiting spontaneous rectangularity, problems in magnetic attraction, highly coercive ferrites, magnetic spectroscopy, ferromagnetic resonance, magneto-optics, physical principles of using ferrite components in electrical circuits, anisotropy of electrical and magnetic properties, etc. The Committee on Magnetism, AN BSSR (S. V. Vonsovskiy, Chairman) organized the conference. References accompany individual articles.

Amulov, M. A. Theory of the Rectangular Hysteresis Loop 23  
 Turov, Ye. A., and A. I. Mitsek. Theory of the Temperature Dependence of the Magnetic Anisotropy Constant of Ferronagnetism and Ferrites 28

Vlasov, B. I., and B. P. Zhabibov. Rotation of the Polarization Plane of Static Waves in Magnetically Polarized Magnetoelastic Media 41  
 Syrkin, L. M. Discussion of the (Preceding) Report 48

Sirota, M. M. The Physicochemical Nature of Ferrites and Their Properties 50

Sirota, M. M., E. A. Ovsyachuk, and M. P. Tshchanovich. Some Peculiarities of the Magnetic Transformation of Ferrites at Curie Point 74

Belov, K. P., and R. Z. Levin. Magnetoelastic Phenomena in Antiferromagnetics 78

Belov, K. P., V. P. Belov, A. V. Zaleskiy, and A. A. Popova. Magnetic and X-Ray Properties of Magnesium-Manganese Ferrite Single Crystals 83

Sirota, A. G. Growing Ferrite Single Crystals With Structure of the Garnet Type 89

Card 4/18

VLASOV, K.B.; ISHMUKHMETOV, B.Kh.

Quasi-static properties of ferromagnetic materials having an anisotropy of the effective spectroscopic splitting factor in areas of large magnetic fields. Fiz. met. i metalloved. 12 no.2:161-169 Ag '61. (MIRA 14:9)

1. Institut fiziki metallov AN SSSR.  
(Ferromagnetism) (Anisotropy)

ACCESSION NR: AP4028990

S/0126/64/017/003/0323/0334

AUTHOR: Ishmukhametov, B. Kh.

TITLE: The interaction of sound with spin waves

SOURCE: Fizika metallov i metallovedeniye, vol. 17, no. 3, 1964, 323-334

TOPIC TAGS: spin wave, elastic wave, sound wave, ferroelectric, dynamic behavior, wave propagation, dispersion branch

ABSTRACT: The behavior of the dispersion branches of elastic (sound) and magnetic (spin) waves connected by means of magnetostriction and gyromagnetism is examined in isotropic ferro-dielectrics without consideration of absorption in the case of an arbitrary direction of propagation in relation to the equilibrium intensity of magnetization. The author examines an isotropic ferro-dielectric located in an external homogeneous permanent magnetic field parallel to which an equilibrium value of magnetization is directed. Through a series of mathematical arguments, the author arrives at the conclusions that in addition to particular cases of elastic wave propagation, an "entangling" of cross sectional as well as longitudinal elastic waves with spin occurs either parallel to or perpendicular to the direction of the equiponderant magnetization. The generally obtained four branches of dispersion,

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ACCESSION NR: AP4028990

$\omega = \omega(k)$  have the following properties: a) dispersion branch characterizing the spin wave at small values of  $k$  converges asymptotically toward the dispersion branch which characterizes the longitudinal elastic wave when  $k \rightarrow \infty$ ; b) the dispersion branch which characterizes a longitudinal elastic wave at small values of  $k$  converges asymptotically toward the dispersion branch which characterizes the cross sectional elastic wave, when  $k \rightarrow \infty$ ; c) dispersion branch which determines the "ordinary" cross sectional sound in practice does not change throughout the entire frequency range; d) the dispersion branch which characterizes the cross sectional elastic wave at small values of  $k$  converges asymptotically toward the dispersion branch which corresponds to the spin wave. In the propagation of elastic waves in a direction parallel or perpendicular to the direction of the equilibrium magnetization, the dispersion branch which characterizes the longitudinal elastic waves undergoes no changes, and one of the branches corresponding to the cross sectional elastic wave which interacts strongly when  $\omega \sim \sqrt{\chi_1}$  with a new spin becomes "entangled" with the dispersion branch which corresponds to the spin wave. The author expresses his thanks to K. B. Vlasov for his interest in the paper. Orig. art. has: 27 formulas and 4 figures.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of the Physics of Metals, AN SSSR)

Card 2/3 2

AUTHOR: Ishmukhametov, B. Kh.

TITLE: Interaction of sound with spin waves. 2

SOURCE: Fizika metallov i metallovedeniye, v. 17, no. 5, 1964, 64'-650

Keywords: spin wave, elastic wave, dispersion, polarization

The influence of absorption is considered on the properties of sound waves coupled by magnetostriction in a medium in which spin waves propagate. The results of a previous article are generalized to the case in which absorption is taken into account. The same results are obtained as previously obtained for the case of frequencies and modulus of elasticity replaced by the complex equivalents. The dependence of the index of refraction on frequency is given for three cases for which the dispersion equation can be solved exactly. It is shown that dispersions of the spin waves can be neglected. Then for  $\theta = 0$ :

$$n_{\pm} \approx 1 + \frac{g^2 M_0^2}{2c_{11}} \left( \frac{\omega_0 - \omega - i\nu(1/gM_0)}{(\omega_0 - \omega)^2 - \omega^2(1/gM_0)^2} \right), \text{ where } \omega_0 = \Omega - \frac{g^2 M_0^2}{c_{11}} \text{ and the remaining terms}$$





APPENDIX IV

$$\text{and } \frac{1}{\omega^2} \approx \rho \frac{c(c_l - c_l') + c_l'(c_{44} - c)}{c_{44}c_l \left[ c \left( 1 - \frac{c_l'}{c_l} \right) + c_l' \left( 1 - \frac{c}{c_{44}} \right) \right]} + \frac{(c_l - c_l')(c_{44} - c)(c_l - c)(c_l' - c_{44})}{c_{44}c_l \left[ c \left( 1 - \frac{c_l'}{c_l} \right) + c_l' \left( 1 - \frac{c}{c_{44}} \right) \right]^2} \frac{\omega^2 - \omega_{\text{res}}^2}{2Q_1}, \text{ where } \omega_{\text{res}} = \sqrt{\frac{c_l'}{c_l} 2Q_1}.$$

The changes in polarizations of the elastic modes with the angle  $\theta$  are found for  $\omega = \omega_{\text{res}}$  neglecting dispersions of the spin waves and absorption. It is shown that there are two elastic modes which interact weakly with spin waves. The first is the transverse wave characterized by the polarization

$$\begin{pmatrix} u_x \\ u_y \end{pmatrix} = \begin{pmatrix} \frac{Q_1}{2} \cos \theta \\ \frac{Q_1}{2} \sin 2\theta \end{pmatrix} \quad (u_z)^0 = 0. \quad \text{The second mode is elastic vibration character-$$

$$\text{ized by the polarization } \begin{pmatrix} u_x \\ u_y \end{pmatrix} = \begin{pmatrix} \frac{1}{2} \sin 2\theta \cos \theta \\ Q_1 \cos^2 \theta + Q_2 \cos^2 2\theta \end{pmatrix} \quad \begin{matrix} h_1 = 4\pi \\ 2Q_1 \end{matrix}$$

$$\begin{pmatrix} \sigma_x \\ \sigma_y \end{pmatrix} = -i \frac{\sqrt{2Q_1} \sin 2\theta \cos \theta}{Q_1 \cos^2 \theta + Q_2 \cos^2 2\theta} \quad \begin{matrix} h_1 = 4\pi \\ 2Q_1 \end{matrix}$$

In addition, there is a third elastic mode interacting strongly with spin waves

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ACCESSION NR: AP4039591

with the polarization  $\left(\frac{u_x}{u_z}\right)^2 = -2 \frac{h_2}{h_1} \frac{\cos 2\theta}{\sin 2\theta}$ ;  $\left(\frac{u_y}{u_z}\right)^2 = 2i \frac{h_1}{h_2} \frac{\cos \theta}{\sin \theta} \sqrt{\frac{Q_1}{Q_2}}$

Expressions for the planes of polarization and the motions of material points, which follow directly from these equations, are also given. It is shown that two types of magnetic vibrations are excited by elastic waves: spin waves and magnetization vibrations. Neglecting absorption, the amplitudes are given respectively by

$$\mu^{\pm} = \mp \frac{g h_2^2 M_0^3}{\omega \mp \sqrt{\omega \omega_1}} \sqrt{\frac{Q_2}{Q_1} \frac{\partial u^{\pm}}{\partial s}}, \text{ where } u^{\pm} = \cos 2\theta u_2 \pm i \sqrt{\frac{Q_1}{Q_2} \cos^2 \theta u_1 - \frac{h_1 - 4\pi}{2h_2} \sin 2\theta u_2}.$$

Orig. art. has: 53 equations and 2 diagrams.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of Physics of Metals, AN SSSR)

SUBMITTED: 27Nov63

DATE ACQ: 19Jun64

ENCL: 00

SUB CODE: EM, GP

NO REF SOV: 002

OTHER: 002

Card

4/4

VLASOV, K.B.; ISHMUKHAMEDOV, B.Kh.

Equations of motion and state for magnetoelectric media. Zhur.  
eksper. i teor. fiz. 46 no.1:201-212 Ja'64. (MIRA 17:2)

1. Institut fiziki metallov AN SSSR.

ISHMUKHAMEDOV, B.M.

Interaction of sound with spin waves. Fiz. met. i metalloved.  
17 no.5:641-650 My '64. (MIRA 17:9)

1. Institut fiziki metallov AN SSSR.

MININA, V.S.; USMANOV, : Kh.U.; ISHMUKHAMEDOVA, M.S.; LUBENETS, A.T.

Effect of ionized radiations on polysaccharides. Khim. i fiz.-  
khim. prirod. i sint. polim. no.1:53-60 '62 (MIRA 18:1)

1. Chlen-korrespondent AN UzSSR (for Usmanov).

ISHMUKHAMETOV, R.U. (ufa)

I 131 treatment of thyrotoxicoses. Med.rad. 7 no.11:3-5  
N°62. (MIRA 16:9)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. I.G.Kadyrov)  
Bashkirskogo meditsinskogo instituta imeni 15-letiya Vsesoyuz-  
nogo Leninskogo Kommunisticheskogo soyuza molodezhi.  
(HYPERTHYROIDISM) (IODINE ISOTOPES—THERAPEUTIC USE)

L 16778-66 EWT(m)

ACC NR: AP6001322

SOURCE CODE: UR/0248/65/000/009/0070/0074

AUTHOR: Baluda, V. P.; Lysogorov, N. V.; Khnychev, S. S.; Ishmukhametova, D. N.; Rukazenkova, Zh. N.; Gorlanova, T. A.; Rudakov, I. A.; Susanyan, T. A.

ORG: Institute of Medical Radiology AMN SSSR, Obninsk (Institut meditsinskoy radiologii AMN SSSR)

TITLE: Blood coagulation and fibrinolytic activity in acute radiation sickness

SOURCE: AMN SSSR. Vestnik, no. 9, 1965, 70-74

TOPIC TAGS: radiation sickness, blood, coagulation, hematology

ABSTRACT: The hemorrhagic syndrome is considered the gravest manifestation of acute radiation sickness and to a great extent determines its degree, duration and outcome. However, despite numerous investigations of the factors responsible for hemorrhage in this disease, the pathogenesis of this phenomenon has not been elucidated. The authors have investigated the functional conditions of coagulation and of the fibrinolytic system of the blood in acute radiation sickness produced by gamma-radiation with Co<sup>60</sup>. 256 "August" strain rats were irradiated with

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UDC: 617-001.28-036.11-07:[616.151.5+616.153.962.4]



L 16778-66

ACC NR: AP6001322

600 rad each. Four phases were discernible during the course of the disease: Phase I--primary reaction (1-2 days following irradiation), II--hidden (3-6 days), III--peak (7-15 days), IV--recovery (20-30 days). Detailed descriptions are presented of the physical appearance and behavior of the animals during the four phases as well as of the changes found in the cellular composition of the blood, bone marrow and spleen. The following changes in the clotting system of the blood were observed following irradiation: initial decrease (phase I) followed by an increase in the coagulation time, reduced tolerance of plasma to heparin, diminished prothrombin activity, increased thrombin time and fibrinogen concentration, first an increase (phase I) then a decrease (Phase III) in thrombin concentration, reduced thermal stability, the emergence of fibrinogen B, reduced fibrinase and increased fibrinolytic activity, diminished platelet count and delayed retraction of the clot. The electron microscope showed disturbances in the fibrin fibers such as rupture and vacuolization. It is evident that the hemorrhagic syndrome appears in the first phase only 24 hours after irradiation as indicated by the presence of blood in the feces at that time. It can therefore be concluded that in acute radiation sickness damage to the blood vessel walls first occurs in the gastrointestinal tract and only later spreads to the vessels of the skin. Also responsible for the hemorrhage

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L 16778-66

ACC NR: AP6001322

gic syndrome is the disordered coagulation of the blood which in itself  
can cause alterations in the vascular walls and produce bleeding in ad-  
dition to its more obvious effects. Orig. art. has: 1 table.

SUB CODE: 06/ SUBM DATE: 05Jun65/ ORIG REF: 008/ OTH REF: 017

Card 3/3 MC

ISSENKINETOVA, G. 2.

ISSENKINETOVA, G. 2. "The effect of certain pharmacodynamic remedies on the cellular reaction of the sensitized organism," Trudy Kazansk. gos. stomatol. in-ta, Issue 2, 1949, p. 77-105, - Bibliog: 58 items

SO: U-5240, 17Dec53, (Letopis 'Zhurnal 'nykh Statey', No. 25, 1949).

EXCERPTA MEDICA Sec 6 Vol 13/1 Internal Med. Jan 59

149. SERUM CHOLESTEROL IN HYPERTENSIVE PATIENTS TREATED BY MEDICAL SLEEP AND RICE AND VEGETABLE DIET (Russian text) - Ishmu-khametova G. Z. - KLIN. MED. (Mosk.) 1957, 35/6 (51-55) Graphs 4 Tables 1

Most of the 100 patients had elevated serum cholesterol levels. Sixty patients were treated with sedation by means of Na amytal for 10-12 days. During this period serum cholesterol had a tendency to increase. A low-sodium and low-cholesterol diet consisting of vegetables, potatoes and rice and containing 73 g. protein and 2,165 calories was given for 10-12 days to 40 patients with hypertension. This regimen caused a lowering of serum cholesterol in 37 patients. A beneficial effect of this diet on blood pressure levels and the patients' general well-being was also noted. Surawicz - Burlington, Vt. (XVIII, 6)

*Chair of Faculty Therapy  
Kazan Med. Inst.*

ISHMUKHAMETOVA, G.Z., dotsent; KICHEYEVA, G.V.

Use of hypothiazide in the compound treatment of hypertension.  
Kaz. med. zhur. no.1:31-34 Ja-F '62. (MIRA 15:3)

1. Kafedra provedevtiki vnutrennikh bolezney (zav. - dotsent  
G.Z. Ishmukhametova) Kazanskogo meditsinskogo instituta na baze  
7-oy gorodskoy bol'nitsy (glavnyy vrach - S.G. Sorkina).  
(THIADIAZINE) (HYPERTENSION)

ISHMUKHAMEDOVA, G.Z.

Biochemical shifts in the organism of patients with hypertension during hypertensive crises. Nauch. trudy Kaz. gos. med. inst. 14:439-441 '64. (MIRA 18:9)

1. Kafedra propedevtiki vnutrennikh bolezney (zav. - dotsent G.Z.Ishmukhametova) Kazanskogo instituta.

ISHMUKHAMETOVA, L. I.

Ishmukhametova, L. I. "On the clinical treatment and pathogenesis of carotenoderma,"  
Voprosy dermato-venerologii, Vol. IV, 1948, p. 101-09, --Bibliog:  
7 items.

SO: U-3735, 21 May (Letopis 'Zhurnal 'nykh Statey, No. 18, 1949).

ACQ. NR: AP6035034

(A)

SOURCE CODE: UR/0122/66/000/009/0074/0075

AUTHOR: Ishmukov, G. I. (Engineer)

ORG: none

TITLE: Finishing of orifices with application of ultrasonic vibrations to the instrument

SOURCE: Vestnik mashinostroyeniya, no. 9, 1966, 74-75

TOPIC TAGS: ultrasonic grinding, grinding machine, ultrasonic vibration emitter

ABSTRACT: Finishing of precision orifices is generally done by the grinding method. With the aim of increasing the productivity of the process, the article reports an investigation of a method for imparting ultrasonic vibrations to the finishing instrument, in an axial direction. The tests were made in a special unit which included a magnetostrictive transformer set into rotation by an electric motor. The high frequency vibrations were produced by a Type UZG-10 generator with a frequency from 18 to 22 kilocycles. The grinding material was a paste with abrasive grains with a diameter of from 1-2 to 10-25 microns. The gap between the piece being ground and the grinding instrument before the start of the operation was within the limits of 0.03-0.06 mm. The diameter of the orifice was 10 mm and its length 50 mm; the material was 15Kh steel; the surface being worked was cemented and hardened to HRC 58-63. The

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UDC: 621.923.74-472:621.9.048.6



ACC NR: AF6035034

experimental results are shown in graphic form. Based on the data obtained, the following conditions are recommended: amplitude of vibrations 0.04 mm; frequency of vibrations 18-22 kilocycles; rotational speed of the grinding instrument 12-15 mm/min; size of the abrasive grains in the paste from 2 to 5 microns; gap not greater than 0.005-0.02 mm. Orig. art. has: 3 figures.

SUB CODE: 11, 13/ SUBM DATE: none

Card 2/2

ISHNAZAROV, N.I.

Find of two trilobites in Middle Devonian sediments of the  
Khanabandy-Tau (Nura-Tau). Trudy Uz. geol. upr. no.2:63-65 '62.  
(MIRA 16:8)  
(Nura-Tau--Trilobites)

ISHNAZAROV, N.I.

Stratigraphy of the Devonian sediments of the system of the Chatkal Mountains. Uzb. geol. zhur. 9 no.4:17-28 '65. (MIRA 18:9)

1. Glavnoye upravleniye geologii i okhrany nedr pri Sovete Ministrov UzSSR.

ISHNIYAZOV, D.; MUKHAMEDZHANOV, S.; PERTENAVA, V.A.

Mineralogy of the Tyubegatan salt deposit. Uzb.geol.zhur. 6  
no.4:61-71 '62. (MIRA 15:9)

1. Institut geologii AN UzSSR i Kashkadar'inskaya ekspeditsiya  
Uzglavgeologii.

(Gissar Range--Salt deposits)

ISHNIYAZOV, D.; PARPIYEV, N.A.

Conditions governing the formation of accessory minerals of boron  
in the Upper Jurassic chemogenic formation of Uzbekistan. Uzb.geol.  
zhur. 7 no.5:26-31 '63. (MIRA 17:3)

1. Institut geologii im. Abdullayeva AB UzSSR i Institut khimii AN  
UzSSR.

POCHEPTSOV, S., izobretatel' (Tbilisi); ISHORE, I., mekhanik (g. Kaunas,  
ul. Kestuche, 36); KOLOMIN, I., inzh. (Odessa, ul.1905 goda, d.4,  
"Orgtekhstroy"); NEKLYUTIN, V., zhurnalist.

Working on high structures. Isobr.1 rats. no.5:13-14 My '62.  
(MIRA 15:5)

(Hoisting machinery)

ISHORIN, P.

PA 19/49145

Welding/Engineering  
Cutting Torches

Set 10

"Production of Gas-Cutting Equipment at the  
Lolomensk Locomotive Factory," P. Ishorin,  
Engr, 1 p

"Artogennoye Delo" No 10

Describes equipment in detail, with one photo-  
graph, two sketches, and two tables.

10/1945

ISHPAKINA, Ye. I.

"Cabbage Diseases in Alma-Atinskaya Oblast and the Fight Against Them."  
Cand Viol Sci, Inst of Botany, Acad Sci Kazakh SSR, Alma-Ata, 1954. (RZhBiol, No 8,  
Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR  
Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55



ISHPAYKINA, Ye.I., kandidat biologicheskikh nauk.

Cabbage diseases in Alma-Ata Province and control measures. Trudy  
Resp.sta.sashch.rast.2:290-346 '55. (MLRA 10:1)  
(Alma-Ata Province--Cabbage--Diseases and pests)

BELOV, B.V.; ISHREYT, N.S.

Semiautomatic line for the processing of parquet boards. Bum. 1  
der. prom. no.2:8-9 Ap-Je '64. (MIRA 17:9)

ISHUKOV, V.

Drying of poultry meat by sublimation. Mias ind SSSR 34 no. 6:  
6-8 '63. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ptitse-  
pererabatyvayushchey promyshlennosti.

PAL'MIN, V.V.; ISHUKOV, V.P.

Effect of high-frequency currents on autolytic processes in  
muscular tissue. Izv. vys. ucheb. zav.; pishch. tekhn. no.3:  
21-25 '58. (MIRA 11:9)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy  
promyshlennosti.  
(Autolysis) (Meat) (Induction heating)

ISHUKOV, V.P., starshiy nauchnyy sotrudnik

Using the sublimation method for drying poultry meat. Trudy  
TSNIIPPa 9:7-18 '62. (MIRA 16:6)

(Poultry plants—Equipment and supplies)

ISHUKOV, V.P., starshiy nauchnyy sotrudnik; PUGACHEV, P.I., inzh.;  
SHIBANOVA, V.A., inzh.

Changes occurring during storage in the proteins and fats of  
poultry meat dehydrated by sublimation. Trudy TSNIIPa 9:  
18-22 '62. (MIRA 16:6)

(Meat, Dried—Analysis)

ISHUKOV, V.P., starshiy nauchnyy sotrudnik; TROFIMOVA, V.F., mladshiy  
nauchnyy sotrudnik

Investigating moisture absorption by dried poultry meat  
dehydrated by sublimation. Trudy TSNIIPPa 9:22-24 '62.  
(MIRA 16:6)

(Meat, Dried—Testing)

I - HUKOVA, H.K.

USSR/Morphology of Man and Animals - (Normal and Pathologic).  
The Nervous System.

S-3

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12397

Author : Ishukova, A.K.

Inst :

Title : On the Structure of the Peripheral Neural Apparatus of  
the Pharynx.

Orig Pub : Jr. Gos. n.-i. in-ta ukha, gorla i nosa, 1956, vyp. 7, 195-  
201

Abstract : Mucous membranes of the pharynx contain numerous medulla-  
ted and non-medullated fibers, and encapsulated and non-  
encapsulated nerve endings. Experiments done on 12 cats  
by severing the glossopharyngeal nerve at the base of the  
skull have demonstrated that the mucosa of the arches of  
the oral and nasal pharynx is innervated by branches of  
the ninth nerve.

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ISHUKOVA, A.K.

Innervation of the mucous membrane of the human pharynx;  
Trudy gos. nauchno-issl. inst. ukha, gorla i nosa no.11:  
71-78 '59. (MIRA 15:6)

1. Iz Patogistologicheskoy laboratorii Gosudarstvennogo  
nauchno-issledovatel'skogo instituta ukha, gorla i nosa.  
(PHARYNX-INNervation)

ISHUKOV, G. Kh., and

ISHUKOVA, E. A.,

(Bashkir Scientific Research Veterinary Experimental Station).

The role of pasture ticks of the genus Dermacentor marginatus in the  
epizootiology of infectious equine encephalomyelitis.

Source: Veterinariya; 4-5; April/May 1945 uncl

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4723. ISHUKOVA, F. Preduprezhdeniya bolezney telyat rannego vozrasta.  
ufa, bashkir. kn. izd., 1954. 27 s. 20 sm. 2.000 eks. 30k.--na  
bashkir. yaz. - (54-55662) 619.2-053.2:616-084

SO: Letopis' Zhrunal' nykh Statey, Vol. 7, 1949

USSR / Farm Animals. Cattle

Q-2

Abs Jour: Ref Zhur-Biol., No 3, 1958, 12090

Author : Ishukova F. A., Katkov N. I.

Inst :

Title : Experience in Raising Calves in Unheated Sheds  
(Opyt vyrashchivaniya telyat v neotaplivayemykh  
pomeshcheniyakh)

Orig Pub: Tr. Bashkirsk. s.-kh. in-ta, 1956, 7, 155-161

Abstract: Calves were kept in groups in unheated sheds on thick bedding, in the winter-spring period, at a temperature of 1 - 11.1°C. The amount of feed used during one year per one calf was (in centners): whole milk 3.0, defatted milk 6.0, oat flour and bran 3.8, silage 4.0, beetroot 6.0, hay 7.6, green fodder supplement 4.0. In a space of one year, an average daily increase in weight of 697 - 713 g.

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